Best Management Practices for Motor Vehicle recycling

A Guidance Manual for the Motor Vehicle Dismantling Industry

Prepared by
Department of Environmental Protection
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Technical Assistance Program
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Smart Business Practices
Automobile Salvage & Scrap Metal Recyclers
Management for Spills and Their Prevention

Benefits/Background: A spill is an accidental release of oil or hazardous material to the environment, and includes any leaking, emitting, disposal or loss of oil or hazardous matter to the air, water, or land. This includes sewers, floors, and paved areas. Our State law requires all spills be reported and cleaned up as soon as possible. Procedures and requirements for reporting vary on the material spilled.

In addition to reporting and cleaning up spills properly, there are practices that can help prevent spills and plan the resources necessary for their clean up. Knowing what to do to minimize these occurrences and planning for the cleanup can help your business, save time, money, and be in compliance with requirements in Maine.

Best Management Practices include:

- Store all containers in an area protected from weather and on an impermeable surface such as concrete, etc. A surrounding berm provides valuable secondary containment.

- Use drip trays, funnels, or other means of containment when transferring liquids to avoid spills.

- Use positive shut-offs such as spring-loaded covers, valves, etc., to prevent the accidental spill of liquids.

- Design work areas so spills can be avoided and easily contained and spill clean up materials such as absorbents, squee-gees, etc., can be easily retrieved for quick use in cleanup.

- If there is a potential for oil or chemical spills, seal floor drains connected to subsurface wastewater disposal (septic or dry well) system. Floor drains connected to a municipal system may need an oil water separator.

- Do regular inspections to be sure containers are in good condition.

- Store ignitable and reactive wastes at least 50 feet from property boundaries.

- Keep all containers closed when not actively adding or removing material.

- Develop a basic spill prevention plan. Involve employees as they may be the most knowledgeable regarding how and why spills sometimes occur.

And in the event of a spill:

- Report it immediately to the Department of Public Safety (1-800-452-4664) or the DEP (1-800-482-0777).

- Contain the flow of material by using a plug or patch, bucket, barrier, temporary dike, channels or other containment vessel to make cleanup and recovery easier. Prevent it from entering floor drains, waterways, swales, etc.

- Recover liquids for recycling if possible otherwise dispose of them properly. One suggestion might be to squeegee to collect as much of the liquid as possible. This will minimize the amount of material that has to be placed in the hazardous waste drum. If you rely on absorbents (such as rags, socks, pads, etc.) use them until they can no longer absorb fluid. Petroleum-contaminated sorbents used in a spill must be disposed of as special waste. Other contaminated absorbents must be disposed of as hazardous waste.

- Instruct employees in proper spill response procedures, including basic safety precautions like:
  -Only clean up a spill if the employee feels they are adequately trained for the risk and clean up the spill without risking their health or the health of others.
  -Minimize touching and walking in spilled material;
  -Minimize inhalation of any resulting gases, vapors, or smoke by opening windows and using fans to blow clean air in;
  -Use gloves and wash promptly if skin comes in contact with material.

- Maintain spill control and containment equipment in a designated area.

- Post a list of emergency numbers and contact numbers next to the phone.
  Include:
  -for oil spill reporting call: 1-800-482-0777
  -for hazardous material reporting call: 1-800-452-4664
  -for fire call:_____
  -for ambulance call:_____

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Smart Business Practices
Automobile & Scrap Metal Recyclers
Managing Rags and Absorbents

Benefits/Background: Rags and absorbents are materials used for general maintenance and spill clean up. Every automobile servicing business can find a use for them. How have you handled yours? These materials also have the potential to cause the release of hazardous materials or petroleum into the environment if saturated to the point where liquid hazardous materials or petroleum is dripping out of the rags or absorbents. Another concern is the safety hazard presented by spontaneous combustion if improperly disposed.

Best Management Practices include:

Rags, sorbents, pads, used to clean up spills of listed hazardous waste (see Chapter 850 of DEP's Hazardous Waste Management rules) are considered hazardous waste residues and must be handled in accordance with DEP's Hazardous Waste Rules. Typically, these listed hazardous wastes are found in brake and gasket cleaners, or in degreasers.

Note: Air drying rags with listed or characteristic waste is not permitted and is considered a form of treatment. If you have rags, sorbents, or pads with listed waste or dripping with other hazardous waste they must be stored in closed containers, labeled and managed as hazardous waste.

Wipes (rags) not contaminated with listed wastes that after use are essentially dry (no free flowing or dripping liquids), may be disposed of as a solid waste. These rags can also be laundered for reuse, or disposed of at a permitted landfill or incinerator.

Whenever possible, recycle or launder non-hazardous shop rags by an industrial laundry service. Do not launder these if the wastewater goes to a septic system.

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Smart Business Practices
Automobile Salvage & Scrap Metal Recyclers
Management for Handling and Disposal of Waste Oil, Oily Waste, and Filters

Benefits/Background: Used oil (or "waste oil" as it is also known by Maine's regulatory definition) is petroleum based oil (either used or unused) which has become unsuitable for its intended purpose, due to the presence of impurities, or loss of original properties. It may include the following wastes generated by an auto recycler or salvage yard:

Vehicle crankcase oils
Hydraulic, or Transmission fluids
Industrial lube oils
Diesel fuel not used for parts washing

Best Management Practices include:

Transfer and store waste oil as a separate waste stream. Handle so that potential for spills is minimized and containment is in place. (See the sheet *Management for Spills and Their Prevention.*)

Be careful not to mix any battery acid, gasoline, antifreeze, or other materials with the oil.

If your business stores waste oil *above-ground*, ensure that the tanks and containers are:

In good condition,
Kept closed except when adding or removing waste oil,
Labeled with the words "WASTE OIL" or "USED OIL",
Located on an impervious level surface within a structure that sheds rain and snow.

If waste oil is stored in an *underground storage tank*, operate the tank in conformance with Chapter 691 Section 7 of DEP's Underground Storage Tank Regulations.

Send collected oil for refinement via a Maine licensed waste oil transporter.

The State of Maine regulates people who handle over 1000 gallons of waste oil per month for the purpose of resale. The US Environmental Protection Agency has also established regulations, which cover waste oil.

** Oil and Gas Filters**:

Gasoline filters should be handled as hazardous waste unless known or proven to be non-hazardous. Store them in a container labeled "Hazardous Waste", "gasoline filters".

Oil filters should be drained (preferably when hot for 12-24 hours), along with puncturing the anti-drain back valve or metal dome cover. Other suitable handling methods include hot-draining and crushing the filter, or hot-draining and dismantling filter into its separate parts.

Drained oil filters may be acceptable as a solid waste at a properly licensed solid waste facility or picked up by a metal recycler. The preferred disposal method is to have nonreusable filters collected for recycling.

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Smart Business Practices
Auto Salvage & Scrap Metal Recyclers
Management for Fuel System Wastes

Benefits/Background: Waste gasoline is hazardous waste because the flash point is less than 140 degrees. Waste carburetor cleaners are frequently hazardous waste because they may contain additional hazardous chemicals like chlorinated solvents.

Waste diesel fuel may be managed as waste oil.

Best Management Practices include:

Keep fuels for reuse and store fuels separately and in closed containers. Contamination of waste oil with even small amounts of gasoline or carburetor cleaner will require expensive disposal of this previously usable waste oil. Fire hazards and risk of cancer from long term exposure are also reasons for concern when handling fuels and carburetor cleaners.

Reuse fuels whenever possible.

Completely empty all fuel system components such as fuel lines, filters, and tanks before recycling the vehicle as scrap metal or discarding parts as solid waste.

Dispose of contaminated waste fuel and carburetor cleaner as hazardous waste.

Use reformulated carburetor cleaners (without chlorinated solvents.)

Store waste fuel and carburetor cleaners separately in properly labeled containers to avoid cross-contamination. Label waste fuel containers clearly with the words "*Hazardous Waste- Gasoline*" or "*Waste Diesel*." Label waste carburetor cleaner containers with the words "*Hazardous Waste- Solvent"* (if you use hazardous cleaners or if the cleaners have become hazardous because of contamination.)

Store flammable products and wastes away from ignition sources such as stoves and welding equipment. Ignitable wastes must be stored at least fifty (50) feet from property boundaries.

Use drip pans to collect excess carburetor cleaning fluid and drain into containers to settle particles, then reuse the cleaner.

Use separate equipment and containers to collect fuel.

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Management for Scrap Tires

Benefits/Background: Scrap tires are a bulky waste and difficult to handle with normal equipment. When stockpiled, tires easily become breeding grounds for mosquitoes and vermin. Tire piles also present an unusual fire hazard and are very hard to extinguish producing toxic smoke and runoff.

Scrap tires can be reused or retreaded (retreading is usually best for truck tires.) Tires also can be used as fuel in properly engineered and licensed combustion like cement kilns and other industrial uses. And scrap tires can be shipped for processing into crumb rubber, chips, or shredded for construction purposes.

Best Management Practices include:

Minimize on-site tire piles. Store less than 1000 tires on site by regularly sending scrap tires, using a state **licensed** non-hazardous waste transporter, to a **licensed** disposal facility. **At 1000 tires in storage**, your business needs both a Town and State license.

Re-market tires with more than 30% serviceable tread.

Separate highest quality casings for retreading, and store casings in a covered enclosure until shipped.

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Smart Business Practices
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Management for Used Antifreeze

Benefits/Background: Antifreeze generally contains ethylene glycol, or propylene glycol, water, and corrosion inhibitors. It is also toxic to humans and animals if ingested. Used antifreeze may also contain heavy metals such as lead that can contaminate soil and water. Contaminants like these and benzene may cause the antifreeze to fail testing standards and be a hazardous waste. Antifreeze that is reused on site is the least regulated. Antifreeze, which is hazardous waste, must be sent off site for disposal.

The simplest way to reduce your regulatory burden is to reuse or recycle antifreeze on site whenever possible.

Best Management Practices include:

Store used antifreeze without mixing with other fluids or wastes. Label used antifreeze collection equipment and containers "Used Antifreeze".

Do not dispose of used antifreeze on the ground, in a storm drain, septic tank or dry well.

Recycle antifreeze with a legitimate recycling service or with on-site (totally enclosed) equipment. (A totally enclosed treatment system does not require permitting from the Department.) The recycling of waste antifreeze determined to be non-hazardous does not require permitting.

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Smart Business Practices
Automobile Salvage & Scrap Metal Recyclers
Management for
Lead Acid Batteries

Benefits/Background: Lead acid batteries collected from salvage vehicles need to be intact for recycling. They can not be burned or disposed of as solid waste in a landfill or any other site disposal. If they are not kept intact, they are considered hazardous waste. Damaged or broken lead-acid batteries are regulated as a hazardous waste because lead from the plates or the lead in the electrolyte is highly toxic and contributes to water pollution when released to the environment. Also, the sulfuric acid battery electrolyte is highly corrosive and can cause bodily injury, or react strongly with many materials on contact. Broken batteries require management and handling in accordance with Maine's Hazardous Waste Management Rules. Keep batteries intact and properly stored for recycling!

Best Management Practices include:

- Store batteries in a secure location to avoid damage by moving vehicles or equipment.
- Store batteries upright, under cover, and on an impermeable bermed surface (concrete pad, containment pallet, etc.) to readily detect and contain leaks. Avoid stacking to prevent damage from falling.
- Keep spent batteries from freezing to avoid cracking their cases.
- Choose a licensed battery recycler.

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Smart Business Practices
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Management for Refrigerants

Benefits/Background: Freon is its common name. And it's also known as R-12 or CFC-12. One of the single largest uses of refrigerants is automotive air conditioning, accounting for over 20% of all refrigerants used in this country. It is illegal to vent any refrigerant into the environment. It has a destructive effect on the ozone layer in the upper atmosphere. This layer of ozone helps absorb ultraviolet radiation before it reaches the surface of the earth. Overexposure to UV radiation has been determined to cause an increase in skin cancer, cataracts, and suppression of the human immune system. Although it is no longer allowable to produce freon in the United States (Federal Clean Air Act required production be phased out), *use* of freon is still permitted as long as supplies are available. For more info contact EPA's hotline phone number: 1-800-296-1996.

Best Management Practices include:

Reuse or recycle…Recover, treat, and return to the specific vehicle for reuse, OR recover and store in a holding tank until such time that it can be sent off site to a reclamation facility. Do not recharge another vehicle.

Use EPA-approved equipment for recovery and perform before crushing vehicles or appliances.

Maintain records that freon was recovered on site or that the vehicle/appliance was brought in following proper freon removal.

Maintain records documenting volume and final disposal of recovered freon.

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Smart Business Practices
Auto Salvage & Scrap Metal Recyclers
Management for Parts Cleaning Solvents

Benefits/Background: Parts cleaning can be an essential part of vehicle maintenance and repair operations. The extent to which parts cleaning solvents are regulated varies depending on the type of solvent used and the contaminants that it collects during use. Aqueous parts cleaners as well as VOC solvent type units can become contaminated sufficiently such that fluids and filters could become hazardous waste. VOC type solvent cleaners can be inherently hazardous because of ignitability of the solvent (if flash point less than 140 degrees F.) Know how to operate your cleaner so that your wastes, especially hazardous wastes, and costs can be kept to a minimum. Perhaps your operation does not require a VOC solvent cleaner, and parts cleaning can be accomplished using other non-hazardous methods?

Best Management Practices include:

Replace hazardous solvents with less or non-hazardous solvents or aqueous-based cleaners. This will help reduce regulatory burden and improve worker health and safety conditions at your business. (For more information on alternative parts cleaning solvents contact the DEP.) Investigate aqueous, microbial parts cleaning solutions. These cleaners can reduce cleaning waste.

Extend solvent life. A filtration system (these include cyclonic, cartridge, etc., type systems) will allow for longer solvent use. Where possible use a wire brush, launderable rags or some other mechanical method to remove heavy deposits **before** cleaning with solvent. Extending solvent life will also reduce hazardous waste generation and the cost of purchasing new solvent. $$. Even if you use non-hazardous cleaners, the filters or cartridges may be hazardous waste because they concentrate any contaminants.

Don't use an aerosol spray cleaner or other hazardous materials in your non-hazardous solvent sink. Many of these cleaners contain chemicals (halogens or other organic compounds) that may cause your spent solvent to be hazardous and more strictly regulated.

Don't leave solvent running and remember to cover parts cleaning equipment when not in use. This will help reduce air emissions and promote a safer, healthier work environment.

Do not dispose of parts washer solvents on the ground, in drains, by burning or evaporating to the air, or by mixing with other liquids. This may make the disposal of the mixture more costly.

Where parts cleaning sinks are leased from a solvent recycling service, ensure that the solvent is only replaced when it is no longer effectively cleaning parts. Arrange for change-out of solvent to be done as infrequently as possible.

Train your staff so they are not creating any more waste or hazardous waste than necessary.

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Automobile Salvage & Scrap Metal Recyclers
Management for Fluids

Benefits/Background: The average volume of operating fluids in a car at the time of salvage has been estimated at approximately **five to ten gallons.** Whatever the average volume of fluids may be, removal of fluids as soon as the vehicle enters the yard is the best management practice. Prompt removal of fluids will allow the maximum reuse of those fluids for your business, and prevent future leaks with their associated cleanup labor, other costs, and liability concerns. See related guide sheet "Management for Spills and Their Prevention." Fluids associated with the auto salvage business include (see also related guide sheets noted in parentheses):

- Fuels *(see also Management for Fuel System Wastes)*
- Refrigerant/Freon/CFCs *(see also Management for Refrigerants)*
- Engine Oil, Transmission, Brake, and Hydraulic Fluids (*see also Management for handling and disposal of waste oil, oily waste, and filters)*
- Antifreeze/Coolant *(see also Management for Used Antifreeze)*
- Parts Cleaning Solvents *(see also Management for Parts Cleaning Solvents)*
- Mercury Switches
- Windshield Washer fluid
- Stormwater Runoff

When working with any kind of vehicle fluid, please consider the following to help reduce your costs, reduce waste, keep hazardous substances out of the environment, and protect your health.

If you…	Consider the risk!	**Best Management Practice**
Wash (steam clean) engines or parts	The resulting wastewater is likely to be contaminated or hazardous from greases, oils and solvents.	Only wash engines and parts if necessary. Collect wastewater for testing and licensed disposal as contaminated or hazardous.
Use aerosol solvents or other degreasers (See also the *Management for Parts Cleaning Solvents guide sheet.)*	These chemicals can compound waste problems by contaminating water, soil or the air with hazardous materials.	Put parts to be cleaned on a drip pan, not the floor. Use a filtered parts washer to clean engine parts and manage the solvent as a hazardous waste, or use non-hazardous aerosols.
Drain vehicle fluids (oil, brake fluid, antifreeze, etc.) (See also the *Management for Used Antifreeze, or Management for handling and disposal of waste oil, oily waste, and filters, or Management for Fuel System Wastes guide sheets.)*	These chemicals can compound waste problems by contaminating water, soil or the air with contaminants or hazardous waste.	Drain vehicle fluids inside on an impervious surface. Use drip pans under vehicles. Collect and recycle used oils and other fluids. Keep these products in separate containers.
Clean Shop floors	Hosing the floors down with water or solvent can flush contaminants into the floor drains, contaminating separator sludges or possibly causing runoff to the ground.	Keep floors clean to avoid the need to wash. Use dry sweeping absorbents. Reuse them as long as they remain absorbent. Use a designated holding tank to hold wash water for sampling and licensed disposal if necessary.
Use solvents (See also the Management for Parts Cleaning Solvents guide sheet.)	Spilled or leaked solvents and their vapors are dangerous and can contaminate the soil, water or the air.	Keep containers closed at all times when not in use. Store solvents in a Flammables Cabinet. Do not use solvents near floor drains or over bare ground. Use non-hazardous solvents.
Store waste vehicle fluids in a room with a floor drain or outside.	Many materials used in vehicles can be dangerous and can contaminate the ground, water or the air.	Seal the floor drain. Keep waste containers in a separate, covered storage area with <u>no floor drain</u>. Install a curb, berm, or good secondary containment system to contain any wastes that may leak from storage containers. Inspect containers for leaks daily or at least, weekly.
Accidentally spilled material (See also *Management for Spills and Their Prevention or Managing Rags and Absorbents guide sheets.)*	Many materials used in vehicles can be dangerous and can contaminate bare ground, water, or the air.	Clean up spills immediately. Notify Maine DEP by calling 1-800-482-0777. Have materials prepared and employees trained to properly respond.

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Smart Business Practices
Auto Salvage & Scrap Metal Recyclers
Management for Scrap Metal

Benefits/Background: Managing scrap metal safely will help prevent pollution at your salvage yard. One important metal of concern in scrap is *lead*. Lead is a toxic substance and potential pollutant. Scrap sources of lead include battery terminals, wheel weights, radiators, heater cores, steering columns, as well as soldered parts like circuit boards and electronic components. Platinum, another valuable metal can be salvaged from catalytic converters. Managing scrap metal safely will help prevent pollution at your salvage yard.

Lead Scrap

Lead wheel (tire) weights and battery cable ends are common sources of lead. Lead is also found in radiators, heater cores, steering columns, soldered parts (circuit boards) and electronic components. Before removing parts such as radiators or heater cores, drain fluids carefully to prevent spills and manage them appropriately. If you need to use a cutting torch, wear respiratory protection such as a respirator with appropriate filters, to reduce the risk of breathing airborne lead that may be released by heating lead scrap.

******Health Alert! After working with lead scrap, always wash well before eating (or smoking) to avoid ingesting lead particles. To avoid generating toxic lead fumes, use a reciprocating saw rather than a cutting torch to remove lead portions from scrap parts when appropriate. Store scrap items containing lead in a covered container capable of handling the heavy weight of the lead.******

Best Management Practices include:

Mark the container "Lead Scrap" for designated storage and clear salvage value.

Larger scrap pieces, such as radiators should be stored to prevent contact with rain, snow, and storm water.

Battery cable ends can be left attached to the battery and recycled along with the battery. Recycle lead parts with a metals battery recycler.

Return parts such as core parts, alternators, master brake cylinders, starters, brake pads to a parts supplier for rebuilding purposes. And properly drain and handle any fluid-containing part as described in fact sheet "Fluids Management."

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Automobile Salvage & Scrap Metal Recyclers
Summary Checklist

Benefits/Background: The following is a summary of some suggestions for best managing your business to help reduce your costs, reduce waste, keep hazardous substances out of the environment, and protect your health. Although not all are specifically required, we recommend that you read through and check how your business is doing.

The average volume of operating fluids in a car at the time of salvage has been estimated at approximately five to ten gallons. Whatever the volume of fluids may be, removal of fluids as soon as the vehicle enters the yard is the best management practice. Prompt removal of fluids and other specific materials will allow the maximum reuse of those materials for your business and prevent future leaks with their associated cleanup labor, costs, and liability concerns.

Materials associated with the auto salvage business include (see specific guide sheet *Smart Business Practices* noted in parentheses below):

- **Fuels**……..(*"Management for Fuel System Wastes"*)
- **Refrigerant/Freon/CFCs**……(*"Management for Refrigerants"*)
- **Engine Oil, transmission, brake and hydraulic fluids**…. (*"Management for Handling and Disposal of Waste Oil, Oily Waste, and Filters"*)
- **Parts Cleaning Solvents**……..(*"Management for Parts Cleaning Solvents"*)
- **Antifreeze/Coolant**……..(*"Management for Used Antifreeze"*)
- **Mercury Switches**
- **Mercury lights** (high intensity discharge lamps HID)
- **Windshield Washer fluid**
- **Scrap metal**……..(*"Management for Scrap Metal"*)
- **Batteries**……..(*"Management for Lead Acid Batteries"*)
- **Rags and Absorbents**……(*"Managing Rags and Absorbents"*)
- **Tires**……..(*"Management for Scrap Tires"*)

Check the list below to see how your business is doing.
Do you do all of the following?…

Hazardous Material Management **Many materials used in vehicles can be dangerous and can contaminate the ground, water, or the air. Many are toxic.**

- Remove all fluids, mercury items, and batteries, before crushing.
- Install and maintain impervious surfaces in all fluid drainage areas. (Seal the floor drain.)
- Use portable steel trays/drip pans to collect residual fluids.
- Dismantle and drain fluids as soon as possible after receiving vehicles.
- Close off all cut fluid lines to prevent drips and leaks.
- Use pumps, siphons or funnels to transfer fluids rather than pouring from open trays and pans.
- Mercury switches and lamps can be handled intact as universal waste, or resell mercury lamps (You will soon be able to receive $1.00 for each mercury switch).
- Keep waste containers in a separate, covered storage area with no floor drain.
- Install a curb, berm, or good secondary containment system to contain any wastes that may leak from storage containers.
- Inspect containers for leaks daily or at least weekly.
- Don't burn or evaporate wastes.

Recyclable Materials

- Reuse or recycle used oil.
- Reuse or recycle antifreeze.
- Reuse gasoline or manage it as hazardous waste.
- Reuse or recycle windshield wiper fluid.
- Recycle oil filters, after making sure to drain them for 24 hours.
- Recycle old tires by re-marketing or sending for retreading. (No more than 1,000 tires may be accumulated without licenses.)
- Recycle spent batteries, and manage damaged or leaking batteries as hazardous waste.
- Recycle or launder non-hazardous shop rags at an industrial laundry service.
- Reuse or recycle used solvents, by contracting with recycler.
- Recycle air bags.
- Reuse or recycle mercury lamps from cars.

Spill Containment and Clean-up (See the *Management for Spills and their Prevention* fact sheet) Many materials used in vehicles can be dangerous and can contaminate ground, water, or the air.

- No fluids may be discharged to the ground or floors.
- Report all oil and hazardous material spills.
- Create a spill plan and train staff on how to prevent, contain, and clean up spills
- Remove all fluids, before crushing to prevent spills
- Drain vehicle fluids inside on an impervious surface.
- Use portable trays/drip pans to collect fluids and prevent spills
- Close off all cut fluid lines to prevent drips and leaks

- Clean-up small spills and leaks immediately using absorbents or by excavating contaminated soil.

Site Maintenance

- Keep floors clean to avoid the need to wash. Use dry sweeping absorbents. Reuse them as long as they remain absorbent. Hosing the floors down with water or solvent can flush contaminants into the floor drains, contaminating separator sludges or possibly causing runoff to the ground.
- Use a designated holding tank to hold wash water for sampling and licensed disposal if necessary.
- Maintain all sumps and fluid containment units regularly and empty sludge and accumulated fluids. Collect any sludge and accumulated fluids for proper disposal. Frequently this will require disposal as special or hazardous waste.
- Check oil/water separator every 6 months and have it serviced annually, ideally before the rainy season. Dispose of any oil or contaminated water from the oil/water separator as waste oil or as contaminated water.
- Maintain frequent garbage service.
- Collect any water from steam cleaning engines or parts, or better still only wash engines and parts if necessary. The resulting wastewater is likely to be contaminated or hazardous from greases, oils and solvents. Test to determine the disposal requirements.

Materials Storage

- Obtain and have available Material Safety Data Sheets for hazardous materials handled at facility.
- Use compatible storage containers with tight fitting lids for all fluids.
- Keep these products in separate containers.
- Label all containers clearly.
- Provide fluid storage containers with level indicators on them to prevent overfilling.
- Avoid stacking fluid containers.
- Store batteries inside out of the weather, upright on a pallet and on an impermeable surface (avoid stacking, if possible to prevent tipping and spilling the acid).

Solvents **These chemicals can compound waste problems by contaminating wash water, sludge, or bare ground with hazardous materials. Their vapors are dangerous.**

- Use a solvent recycling service for parts washers.
- Keep solvents in closed containers.
- Use non-hazardous cleaners where possible and prevent contamination of these cleaners.
- Store solvents in a Flammables Cabinet.
- Do not use solvents near floor drains or over bare ground.
- Put parts to be cleaned on a drip pan, not the floor.
- Use a filtered parts washer to clean engine parts.

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Land Use Laws Affecting New or Expanded Facilities

Benefits/Background: Knowing ahead of time what kinds of land-use laws might apply to your facility will allow you to properly plan for establishing a new facility or to expand an existing facility. Understanding which laws apply to your project allows you to plan such that you might avoid needing permits or be able to proceed at the simplest permitting level. Obviously, it is also beneficial to avoid having a violation occur and subject yourself to an enforcement action that may require moving or modifying your facility, applying for after-the-fact permits or restoring areas to their pre-existing conditions, not to mention the payment of civil monetary penalties.

Activities requiring permits: There are several land-use laws administered by the Maine DEP that apply to new or expanded facilities where the construction involves building structures (e.g. roads and buildings), disturbing soil and/or filling, and in some cases the cutting and removal of vegetation.

Natural Resources Protection Act (NRPA): Permits are required for most construction activities in, and within 75 feet of, protected natural resources which includes the ocean, lakes, rivers, streams, brooks, and freshwater wetlands. Some activities are exempt under the law and some may qualify for a reduced permitting procedure called Permit by Rule.

The Stormwater Management Act: Effective Sept. 19, 1997, a permit is required before constructing one or more acres of impervious area or, if located in a watershed most at risk from new development, constructing 20,000 square feet or more of impervious

area. A permit is also required whenever 5 or more acres of land is disturbed. "Impervious area" includes buildings, roads and parking and storage areas. "Disturbed areas" include land where the vegetative characteristics and the drainage patterns are altered, for example converting forest to fields.

The Site Location of Development Act (Site Law): A permit is required whenever a project will exceed 3 acres of structure which includes buildings, roads, parking and other areas that are stripped, graded and not revegetated. When determining if this law applies to a development, all buildings count that were built since Jan. 1, 1970, and all other structures count that were built after Oct. 1, 1975.

The Erosion and Sedimentation Act: This law requires anyone disturbing soil and filling to use erosion controls, such as silt fence, to prevent soil from leaving the project site or entering a protected natural resource.

Who to Contact: The Division of Land Resource Regulation at the DEP is responsible for administering the laws referred to above. At your request, DEP staff will visit your site and help identify any regulated natural resources, such as brooks and wetlands, as well as help you identify any permitting needs. There are 4 regional offices to provide help: Portland, Augusta, Bangor and Presque Isle.

Also, before doing anything, check with your local Codes Enforcement Officer about any local ordinances and permitting requirements.

Maine Small Business
Technical Assistance Program
1-800-789-9802
issued: Revised February 26, 2003

Maine Department of
Environmental Protection
1-800-452-1942
www.state.me.us/dep

Smart Business Practices
Automobile Salvage & Scrap Metal Recyclers
Secondary Aluminum Production

IMPORTANT SAFTEY NOTICE FOR MELTING/SMELTING OF METALS: If water enters the sweat furnace or other metal melting unit, a violent explosion may result. Unit should be protected from rain during smelting and materials placed into the unit should be free of standing water, ice or snow.

Benefits/Background: In March 2000, the EPA came out with regulations on the melting/smelting of metals with particular emphasis on the smelting of aluminum. The smelting of aluminum gives off gases such as dioxin, furans, chlorine and hydrogen chloride. These compounds can cause cancer, respiratory irritation and damage to the nervous system. To lower the emission of these harmful pollutants, the EPA is requiring all aluminum smelters to either install afterburners to destroy these compounds or perform stack testing to demonstrate you are in compliance.

What you need to do if you smelt aluminum:
File an initial notification form. Even if you have a sweat furnace you are not using or do not use very often, no matter what size, you still need to file the initial notification.

By March 2003

- Register your smelter
- Install an afterburner and maintain the temperature at or greater than 1600 °F or higher (or perform stack testing to prove the sweat furnace is below the emission standards set for dioxin/furans)
- Record and average the temperature into 15 minute and 3 hour block averages and,
- Develop a Operation, Maintenance, and Monitoring (OM&M) plan and a Start-up, Shutdown and Malfunction (SSM) plan.

Estimated Costs:
Cost to purchase and install an afterburner - ~$8,000 to $58,000
Cost of a temperature sensor and data logger to measure and record the temperature of the afterburner - ~$1,000
Cost of stack testing for dioxin/furan- $10,000 to $25,000
Costs of civil penalties assessed for non-compliance – up to $25,000 per day

When installing a fuel supply or a sweat furnace, whether oil or gas fired, the installation must be done by a person licensed by the Oil and Solid Fuel Board to do this type of work.

If you have an aluminum sweat furnace, contact the Bureau of Air Quality of the Maine DEP at the number listed at the top of the page for assistance in meeting the Federal Regulations concerning aluminum smelting. The DEP is working to develop sample plans, which you can use as models to help you comply with the new regulations.

This guide sheet is provided by the Small Business Assistance Program at the Maine Department of Environmental Protection for assistance with pollution prevention and regulatory compliance efforts..